

2. (Once Amended) The method of claim 1 further comprising using the amorphous silicon film in an electronic, optoelectronic, or photovoltaic device.

3. (Once Amended) The method of claim 1 wherein the light damaged region extends 700-10,000Å below the film surface.

4. (Once Amended) The method of claim 1 wherein etching comprises using a liquid etchant to remove 500 - 10,000Å of the silicon film.

5. (Once Amended) The method of claim 1 wherein etching comprises using a reactive hydrogen in a plasma or chemical vapor deposition reactor to remove 500-10,000Å of the silicon film.

6. (Once Amended) The method of claim 1 further comprising repeating the steps of illuminating and etching for a plurality of cycles.

8. (Once Amended) An amorphous silicon film produced according to the method of claim 1:

9. (Once Amended) An amorphous silicon film produced according to the method of claim 3.

10. (Once Amended) An amorphous silicon film produced according to the method of claim 6.

11. (Once Amended) The method of claim 1 wherein providing, illuminating, and etching are performed as steps in an amorphous silicon film deposition process.

12. (Once Amended) The method of claim 3 wherein providing, illuminating, and etching are performed as steps in an amorphous silicon film deposition process.

13. (Once Amended) The method of claim 6 wherein providing, illuminating, and etching are performed as steps in an amorphous silicon film deposition process.

14. (Once Amended) The method of claim 1 wherein the amorphous silicon further comprises an alloy selected from the group consisting of a-SiGe:H and a-SiC:H.

15. (Once Amended) The method of claim 3 wherein the amorphous silicon further comprises an alloy selected from the group consisting of a-SiGe:H and a-SiC:H.

16. (Once Amended) The method of claim 6 wherein the amorphous silicon further comprises an alloy selected from the group consisting of a-SiGe:H and a-SiC:H.

17. (Once Amended) The method of claim 9 wherein the amorphous silicon further comprises an alloy selected from the group consisting of a-SiGe:H and a-SiC:H.

Please add new claims 18 and 19.

18. (New) The method of claim 1 wherein etching comprises using a liquid etchant to remove about 700Å of the silicon film.

19. (New) The method of claim 1 wherein etching comprises using a reactive hydrogen in a plasma or chemical vapor deposition reactor to remove about 700Å of the silicon film.

REMARKS

The above listed claim amendments along with the following remarks are believed to be fully responsive to the Office Action set forth above. Claims 1-6 and 8-17 have been amended